

# Neuroscience and free will: religion and science do not always disagree

**The free will debate is caricatured as atheist science versus religious tradition, but it's more complicated than that, writes Professor Peter Clarke.**

By Peter Clarke

Published: 9:49AM BST 18 Oct 2010

Tom Chivers' lively description of his interview with neuroscience professor Patrick Haggard highlights the fundamental question of whether brain research undermines our belief in free will and responsibility. Our brains determine our thinking and behaviour, and our neurons obey the laws of physics and chemistry, so how are we different from neural machines? As Tom points out in a second article, a lot depends on how you define free will.

On this issue, philosophers are divided into two camps: “libertarians” and “compatibilists”. For libertarians, free will is almost by definition incompatible with brain determinism. They argue from our experience of making choices that somewhere in the brain there must be indeterminate events. Most modern libertarians, including Robert Kane, invoke Heisenbergian uncertainty as the source of brain indeterminism, despite scepticism among scientists. In contrast, compatibilists argue for a different definition of free will. They make the distinction between external and internal constraints. The difference is illustrated by the following two excuses: “It’s not my fault I broke the window, my brother pushed me”, and “It’s not my fault I broke the window, my brain caused me to do it”.

Few people would accept the second excuse, which seems strange at best. If my brain did not cause me to break the window, I was certainly not responsible, so how can brain causation be an excuse? Of course, simple arguments like this are only a start in a complicated debate, but compatibilists are currently in the majority in claiming that the “varieties of free will worth wanting” (to quote Dennett) do not require indeterminate events in the brain. The debate is by no means over.

Our attitude to the free will question is intimately linked to the dualism-monism debate. Dualists believe that there are two separate entities, soul (or mind) and brain, and most maintain that they somehow interact, following Descartes. Monists deny a separate soul, saying that everything is matter. This links in with the question of free will, because if you believe in a separate nonphysical soul/mind that somehow influences the brain, you must assume that conventional physical and chemical forces do not completely determine brain function.

This debate is sometimes caricatured as a rearguard defense by religious or spiritually minded traditionalists against the attacks of modern science and atheistic philosophy, but there is not such a neat dividing line. The first philosophers to invoke physical indeterminism as necessary for free will were the materialists Epicurus and Lucretius,

who denied life after death and supernatural intervention in the world. Judaism was monistic throughout the Old Testament era, and early Christianity appears likewise.

It is true that neo-Platonist dualism was incorporated into the philosophies of many leading Christian thinkers including Augustine, Luther and Calvin, but over the last couple of centuries these were opposed by equally Christian monists such as Joseph Priestley, the nonconformist minister famed for isolating oxygen, who argued that dualism was a contamination of biblical Christianity by Platonic philosophy. Over the last 60 years monistic philosophy of mind has gained ground among Christians because of increasing evidence that the biblical conception of man is monist, not dualist. For example, the Hebrew word *Nefesh*, traditionally translated as “soul”, does not refer to a separate, Platonic soul and is nowadays usually translated as “being”.

But how can a monistic conception of the mind-brain be reconciled with humanist notions of freedom and responsibility and with a theistic belief in life after death? Several solutions have been proposed, but the dual-aspect monism of protestant neurobiologist-philosopher Donald MacKay is justifiably one of the most influential, as is reflected in the writings of many subsequent theistic monists such as Malcolm Jeeves, Nancey Murphy and Warren Brown. According to MacKay, my subjective conscious experience and an objective neurobiological account of my brain are two complementary views of a single entity. There is no separate Platonic soul that floats out of the brain at death. MacKay couples this dual-aspect monism to a compatibilist approach to free will. Thus, protestant MacKay and atheist Daniel Dennett share common ground as far as the mind-brain relation is concerned.

But how could the inevitable destruction of the brain at death square with any idea of an afterlife? The New Testament does not teach an eternal soul, but a resurrected “spiritual body”. This is not defined precisely, but the idea seems to be that the information structure of the real “me” will somehow be restored into a very different embodiment, just as a poem can retain its essence when copied or a computer programme can be reinstalled on a new computer.

There is still plenty of debate even among theists. Monism and compatibilism dominate among protestant neurobiologists and philosophers, whereas Roman Catholic and Orthodox scholars (e.g. Richard Swinburne) tend to favour dualism. If a line can be drawn through the diversity of opinions, it may be the ancient divide between Aristotelians and Platonists. The monistic view of soul/self as information structure is close to that of Aristotle, whereas the most widespread forms of dualism are neo-Platonist. But there is no neat division between dualistic, libertarian theists and monistic, compatibilist atheists.

*Peter G H Clarke is an associate professor of neuroscience at the Département de Biologie cellulaire et de Morphologie at the Université de Lausanne.*